

**APPARATUS, SYSTEM, AND METHOD OF
ARCHIVAL AND RETRIEVAL OF SAMPLES**

The present application is related to non-provisional application Serial No. 10/007,355 filed November 7, 2001, entitled "SAMPLE CARRIER" and also to
5 non-provisional application Serial No. 10/005,415 filed November 7, 2001, entitled
"ARCHIVE AND ANALYSIS SYSTEM AND METHOD" the disclosures of which
are hereby incorporated by reference in their entirety.

fig 1
9/29/2006

Field Of The Invention

Aspects of the present invention relate generally to archival of sample
10 material, and more particularly to a system and method of archiving and retrieving
biological or non-biological samples maintained in desiccated form at a plurality of
sample nodes on a carrier.

Description Of The Related Art

In many applications such as pharmaceutical and medical research, law
15 enforcement, and military identification, for example, it is often desirable to have
access to numerous biological samples. Conventional biorepositories or other
sample storage facilities utilize liquid or low temperature cryogenic systems for
sample storage; these liquid and cryogenic systems are expensive both to create and
to maintain. Additionally, current technology generally presents system operators
20 with complicated and labor intensive maintenance and administrative
responsibilities.

Specifically, the intricacies of cryogenic systems may typically oblige
technicians, researchers, and system operators to engage in coordinated labor for
weeks to retrieve and to prepare thousands of deoxyribonucleic acid (DNA) samples
25 from whole blood. Accordingly, conventional approaches for archiving DNA in
liquid or cryogenic states are fundamentally inadequate to the extent that they do not
accommodate high volume processing and sample throughput. Current research
trends recognize benefits associated with systems and methods of archiving and
retrieving biological and non-biological samples which may be capable of processing
30 thousands of samples per day; current technology, however, is inadequate to attain

1000559-10201